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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/876,351

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Doug Joseph

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11/09/2006

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EXAMINER

POLTORAK, PIOTR

ART UNIT

PAPER NUMBER

2134

DATE MAILED: 11/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/876,351

Applicant(s)

JOSEPH ET AL.

Examiner

Peter Poltorak

Art Unit

2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,7,8,10-18 and 21-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,7-8,10-18,22 and 24-26 is/are rejected.
- 7) ☒ Claim(s) 21 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Amendment, and remarks therein, received on 08/25/2006 have been entered and carefully considered.
2. Claims 1, 7-8, 10-18 and 21-26 have been examined.

Response to Amendment

3. Applicant's amended claims 1-8, 10-12 and 14-18. With the amendments, in particular to claims 1, 11 and 15, applicant clearly differentiate claim limitations from the art of record, stating that a partition is a separate virtual computer running on a particular node that is partitioned into a plurality of partitions. As a result, the amended limitations overcome the art of record and the previously used rejection is withdrawn.

Claim Rejections - 35 USC § 103

4. Claims 1, 7-8, 10-12, 14-16, 18 and 22, 24-26 are rejected under 35 U.S.C. 103 (a) as being obvious over APA (Admitted Prior Art) in view Pfleeger (Charles P. Pfleeger, "Security in computing", 2nd edition, 1996, ISBN: 0133374866).

As per claims 1, 11, 15, 22, 24 and 25-26 APA discloses user processes running on a first partition of a first node partitioned into a plurality of partitions including the first partition, each partition having a corresponding operating system instance such that each partition is a separate virtual computer running on the first node, to a user process running on a second partition of a second node partitioned into a plurality of partitions including the second

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partition, each partition having a corresponding operating system instance such that each partition is a separate virtual computer running on the second node (*a scalable server partitioned into different operating system instances, wherein each operating system instance is logically a different virtual computer running in a separate partition*, APA pg. 1 last paragraph, *a sever may have a number of potential communication end points that allow the process of its partitions to communicate with the processes of partitions of the same or other servers*, APA, pg. 2, last two paragraphs).

5. APA does not disclose sending a key, identification of the first partition of the first node, and identification of the second partition of the second node from hardware of the first node to hardware of the second node.
6. Pfleeger discloses a node (Pable) sending a key to another node (Pfleeger pg. 131-134).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to configure transfer key from one to another node as disclosed by Pleeeger. One of ordinary skill in the art would have been motivated to perform such a modification in order to allow secure communication (Pfleeger, pg. 22-23).

As per identification of partitions, the examiner points out that in order for communication packets to reach destination the packets include an identification of a destination (e.g. a destination address). Furthermore, the originator address is included to enable mutual communication (e.g. see TCP/IP packets).

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Being unique, addresses identify the nodes, and as a result all of the partitions that a particular node comprises. Thus, the regular communication between two nodes, each comprising several partitions and exchanging network packets, includes the identification of partitions of the first node and the identification of partitions of the second node.

7. APA does not disclose verifying the identification of the first node (in particular the first partition of the first node) and identification of the second node (in particular the second partition of the second node by the hardware of the second node).

Pfleeger discloses verifying the identification of a first node and a second node (verifying origin and destination addresses, including applications or ports identification on a first and a second nodes, "Screening Router", pg. 429-430). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to verify the identification of a first node and a second node as disclosed by Pfleeger given the benefit of traffic control.

The examiner points out that, implementing verifying the identification of communicating parties disclosed above ensures that unauthorized processes are unable to send unauthorized messages.

8. APA also does not disclose restricting user processes (e.g. that none of the user processes are able to access the key and that unauthorized processes running on the first node are unable to send unauthorized messages through the hardware of the first node).

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Pfleeger discloses restricting user processes (e.g. "Virtual Machines" separating users from other users and from the hardware of the system or "Layered Design" separating user processes from security functions, Pfleeger, pg. 300-302). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to restrict user processes (e.g. access to keys). One of ordinary skill in the art would have been motivated to perform such a modification in order to provide high degree of security, Pfleeger, pg. 286).

9. As per claim 7, APA in view of Pfleeger disclose the inter-node communication that is a clear indication of a presence of a connection management (e.g. connection set up) mechanism.
10. As per claim 8, 12, 14, 16 and 18 APA in view of Pfleeger does not disclose the use of a channel state table in process of verification the identification of the first and second partitions of the first and a second nodes and does not disclose key tables that are used by the communicating nodes. Official Notice is taken that it is old and well-known practice to use tables (e.g. channel state tables/key tables) to verify information and utilizing tables (e.g. channel state tables/key tables) in verification of information and one would have been motivated to use the tables especially in light of the benefits of table structures as evidenced by their commercial success. Limiting access to these tables would have been implicit given the fact that these tables would comprise secure information.

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11. As per claim 10, the processing of messages (e.g. creating, editing etc.) messages is completed at the application layer that is at the user process layer.
12. Claims 13 and 17 are rejected under 35 U.S.C. 103 (a) as being obvious over APA (Admitted Prior Art) in view Pfleeeger (Charles P. Pfleeeger, "Security in computing", 2nd edition, 1996, ISBN: 0133374866) and further in view of Benedyk et al. (U.S. Pub. No. 20010055380) and Bean (U.S. Patent No.4843541).
- APA in view of Pfleeeger disclose inter-node communication as discussed above.
13. As per claims 13 and 17, APA in view of Pfleeeger do not explicitly teach connection tables accessible by user processes and connection management hardware mechanism of communicating nodes, wherein the connection tables have number of entries, each entry identifying one of the user processes of both communicating inter-nodes.
14. Benedyk teach a connection table with a number of entries, each identifying one of the user processes of both communicating inter-node (Benedyk, Fig. 8).
- It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate a connection table as taught by Benedyk.
- One of ordinary skill in the art would have been motivated to perform such a modification in order to allow easy communication in a TCP/IP based

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networks by providing easy access to access to fundamental information required in the TCP communication.

15. The examiner points out that although the explicit example of the claim limitations were provided, defining ports in TCP/IP communication is old and well known in the art of computing. In fact some of the ports used by the most common applications are referred to as "Well-known" ports.

Conclusion

Claims 21 and 23 are rejected as dependent on the rejected claims 1 and 11. However, claims 21 and 23 would be allowable if written in the independent form.


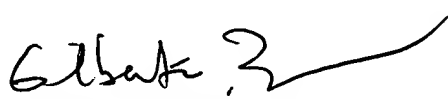
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


11/6/08
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